Epitomes

Important Advances in Clinical Medicine

Psychiatry

The Scientific Board of the California Medical Association presents the following inventory of items of progress in psychiatry. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist busy practitioners, students, research workers or scholars to stay abreast of these items of progress in psychiatry that have recently achieved a substantial degree of authoritative acceptance, whether in their own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on Psychiatry of the California Medical Association and the summaries were prepared under its direction.

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Current Perspectives in Posttraumatic Stress Disorders

THE TERM POSTTRAUMATIC STRESS DISORDER was first officially used in 1982 and was associated with the problems of Vietnam veterans. The disorder appears in those who have suffered a significant traumatic event that is outside the usual human experience. These include serious threats to one's life or one's family or relatives or witnessing violence or death. The primary symptoms include nightmares or intrusive thoughts, numbing of responsiveness to the external world and a series of other symptoms that may involve avoidance behavior of the traumatic event, startle reaction, sleep disturbance, memory impairment and guilt about surviving. This disorder has now been studied in a number of survivors.

Following the May 1980 eruption of Mount St Helens in southwestern Washington, a team of researchers studied the effects on persons involved. Of 548 who experienced the volcanic eruption, 99 had a psychiatric disorder related to the eruption. Most had a generalized anxiety disorder, but 11 people had a posttraumatic stress disorder. In contrast to this natural disaster, disasters caused by humans often result in a higher incidence of this latter disorder.

During the Pol Pot atrocities in Cambodia between 1975 and 1979, conditions like the holocaust in Nazi Germany occurred. Researchers found in Cambodians symptoms of the posttraumatic stress disorder similar to those suffered by Nazi victims. In some Cambodians the symptoms have lasted for more than ten years. In studying a community sample of Cambodian adolescents who had endured these atrocities, 20 of 40 students had the disorder. A majority also had persistent depressive symptoms. Recent work with children who have witnessed violence or have been victims of physical abuse or incest show a very high incidence of the disorder. In one study, 80 of 100 uninjured witnesses of violence to parents had posttraumatic stress disorder. Much of the reexperiencing takes the form of traumatic play and dreams. These children often appear numb, constricted and show subdued behavior.

There is increasing evidence that this disorder can be very persistent. In a 40-year follow-up of World War II American prisoners of war, of those who had the stress disorder immediately following the incarceration, 39% still reported mild symptoms, 24% had improved but with moderate residual symptoms and 8% had no recovery or had deteriorated. There are reports of the reactivation of the syndrome with a 30-year delay in veterans of World War II. It can have a prolonged recurrent course, and current stresses such as occur in aging can reactivate it.

People who have histories of being exposed to severe traumas, either as children or adults, should be considered at a high risk for suffering from a posttraumatic stress disorder that may have been asymptomatic for long periods of time.

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Group Therapy and Schizophrenia

GROUP THERAPY is a useful modality for treating patients with schizophrenia. In a recent review of 43 controlled-outcome studies, it was judged to be effective in 80% of the outpatient studies and 67% of the inpatient studies. In the inpatient setting, there was a tendency for long-term groups to be more beneficial than short-term groups, and significantly more interaction-oriented groups were judged effective than insight-oriented groups.

Homogeneous groups composed entirely of schizophrenic patients are more successful clinically than heterogeneous groups because the patients have common treatment goals, and specific techniques can be used that address mutual needs. Inpatient groups usually meet three to five times per week in sessions lasting 45 to 60 minutes. In the outpatient setting, weekly groups lasting 60 to 90 minutes are typical. In both settings, five to eight patients is the optimal number. Cotherapy teams are useful because it sometimes takes two therapists to cope with a group of disturbed patients. Therapists should be active, open, supportive and consistent, and they should strive to create a safe environment free of excessive anxiety and confrontation.

Several clinical studies have found that patients in these groups value discussion topics aimed at improving relationships with others and learning to cope with psychotic exper-

iences. Less valuable have been topics centering on advice-giving and the expression of social amenities. Although personal problems may be discussed, topics dealing with sexual issues and anger between the members may increase anxiety and lead to regressive behaviors.

Schizophrenic therapy groups are cost-effective, they have been found to lower the rates of readmission to hospital and they are valued by patients, with attendance rates of more than 95% being reported. They are an important treatment modality when used in conjunction with antipsychotic medication and long-term follow-up.

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Update on Psychoneuroimmunology

THE RAPIDLY EMERGING interdisciplinary field of psychoneuroimmunology—also called neuroimmunomodulation, behavioral immunology or psychosocial neuroimmunology—is concerned with the complex bidirectional interactions between the central nervous system and the immune system and their clinical implications. Several acute and chronic naturally occurring stresses and depression have recently been shown to be immunosuppressive. The stress of medical school "examination week" activates latent herpes simplex virus infection to a greater degree in lonely students. Activation of the Epstein-Barr virus and lowered helper-suppressor T-cell ratios result from the chronic stress of providing family care to victims of Alzheimer's disease. Poor marital quality, a recent separation and divorce and consequent depression are associated with a reduction of several measures of immune function. Depressive illness requiring hospital admission (but not dysthymic disorders) is accompanied by immunosuppression as shown by reduced lymphocyte mitogenic responsiveness in vitro. Patients with endogenous depression associated with psychomotor agitation show a reduced sensitivity of lymphocyte β-adrenergic receptors. Depressed patients have a lower basal lymphocyte content of cytoplasmic glucocorticoid receptors than controls.

The close relationship between the central nervous system (CNS) and the immune system is emphasized by the findings of receptor sites for some psychotropic drugs on immunologically competent cells and by cell-surface similarities between neurons and lymphocytes. To illustrate, benzodiazepines stimulate monocyte chemotaxis, an effect likely mediated by the peripheral-type receptor. Thy-1 glycoproteins are major cell-surface constituents of thymocytes and neurons. French investigators have implicated lateral specificity in the cerebral cortex in neuroimmunoregulation, with possible cognitive versus affective influences on immunity. Left cortical lesions decrease T-cell numbers, responsiveness to mitogen and "natural killer" cell cytotoxicity. (Autoimmune and atopic diseases are more common in left-handed persons.)

Interest in the role of enkephalins and endorphins in mediating stress effects on immunity has increased considerably. Rats that receive intermittent foot shock stress, which produces opioid-dependent analgesia, show naloxone-reversible immunosuppression. Secretion of both adrenocorticotropic hormone (ACTH) and β-endorphin is controlled by corticotropin-releasing factor (CRF). In turn, the immune system secretes factors that influence CRF and opiocortin neurons. An anatomic substrate in the CNS exists for participation of the peptide systems in autonomic, immune and other physiologic homeostatic mechanisms, which tend to be disordered under conditions of stress, in disease and in aging. Met-enkephalin-like, morphinelike and β- and γ-endorphin receptors have been identified on lymphocytes. ACTH and β-endorphin can both behave like lymphokines. Both γ-interferon and the immunosuppressant drug cyclosporine modify symptoms of naloxone-induced abstinence syndrome in morphine-addicted rats. Edwin Blalock, PhD, at the University of Alabama at Birmingham says "It appears that the immune and neuroendocrine systems have the ability to signal each other through common or related peptide hormones and receptors."

New links are being forged between sleep research and psychoneuroimmunology. Interferon and other lymphokines can enhance slow-wave sleep, and interferon decreases rapid-eye-movement latency, suggesting that sleep may play an important role in recuperative processes. Interleukin 1 levels increase in conjunction with the onset of slow-wave sleep. Such findings suggest that disturbance of sleep, as occurs in conjunction with depression and with stress, might contribute to the associated impairment of immunity.

The organic brain syndrome found in about 40% of patients with the acquired immunodeficiency syndrome (AIDS), a presenting symptom in as many as 10%, is based on the neurotropic and the lymphotropic natures of the human immunodeficiency virus, which infects monocytes and microglia of the CNS as well as other glial cells and neurons. Psychosocial research in AIDS suggests that attitudes, affects, social support and coping may affect the duration of survival. Current psychoneuroimmunologic research in AIDS and the AIDS-related complex should provide more specific clinical and immunologic correlates of psychosocial variables.

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Methods to Aid Memory in the Aged

THERE ARE GOOD NEWS and bad news about improving memory with aging. The good news is that 90% of us will never become demented. The bad news is that the normal memory loss experienced by a typical 75-year-old person is a loss of 30% when compared with their performance during youth. Because there is little to be done about dementia itself, I will discuss improving normal memory losses with aging.

First of all, the terms have been changed. This normal loss used to be called "benign senescent forgetfulness." It was